Student Living Arrangements: An Exploration of Marginalized Identities

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Abstract

While past research found on-campus living to benefit student success, recent studies find mixed support, particularly for marginalized groups. This study focuses on first-year and sophomore students of color, LGBQ+ students, gender non-binary students, and students with disabilities, analyzing where they live as related to a variety of outcomes. Data come from 76 residential colleges and universities that participated in NSSE during 2018. Results show differences in where students report living and students' engagement and perceptions of belongingness and safety in their living communities.

Keywords: housing, residence life, marginalized students, higher education,

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Campus environments are crucial to the success of college students (Kuh, 2000; Museus, 2014; Strange & Banning, 2001, 2015). They frequently shape a student's sense of belonging and the ways students get involved in their community (Kuh, 2000). More specifically, living on campus is championed as a mechanism to support positive student outcomes due to links with retention and engagement (Graham et al., 2018; Schudde, 2011). Researchers have also found stark differences in the experiences of students who live off campus and their peers who live on campus, especially related to matters of openness to diversity (Pike, 2002). Moreover, researchers note differences between students who live in off-campus apartments and those who live at home with family. For example, students living at home were more likely to persist and to perceive greater belongingness and safety (Gonyea et al., 2019). As such, this paper seeks to answer two research questions:

1. What are the living arrangements where students from marginalized backgrounds are most represented during their collegiate years?
2. What is the relationship of marginalized students' living arrangements to engagement and perceptions of their residential and campus environments?

Conceptual Framework

We draw on multiple theories to establish a framework to guide our inquiry. Museus' (2014) Model of Culturally Engaging Campus Environments (CECE) challenges traditional notions of campus environments by centering students of color and their experiences, while Jones and McEwen's (2000) Model of Multiple Dimensions of Identity (MMDI) reminds researchers that students' identities are complex in nature, often containing many layers. Together, these two theoretical constructs guide our study as we seek to understand and amplify the voices of students who hold marginalized racial, sexual, gender, and ability identities. Moreover, we recognize the influences of family and academic performance, and include them in our analysis (Museus, 2014). As a whole, the conceptual framework challenges this research to move beyond studying the housing environments of majority students to work toward developing recommendations for practitioners to better assist marginalized populations on their campuses. It also guides implications for future research as we urge colleagues to consider ways to critically evaluate the living arrangements of students at their institutions.

Literature

This section examines the literature pertaining to living arrangements. First, an outline of the benefits and challenges are interrogated. Next, specific marginalized students' experiences with housing are discussed, providing context for the populations in this study. It is important to note this is a broad review of a variety of studies and student populations, keeping in mind the myriad combinations of identities. In referring to extant research, original terminology is used to be mindful of the authors' intentions and their participants' identities e.g., LGB v. LGBT, Black v. Students of Color, etc.

Student Living Arrangements

Student learning often occurs in residence halls through the means of physical environments and social interactions (Riker & Decoster, 2008). More specifically, students frequently develop in areas related to social responsibility, political awareness, individual values, and personal growth. To that end, an emotionally supportive environment helps students to remain on campus (Foubert et al., 1998). Trends in student housing during the first decade of the 2000s included wireless internet, suite and private room facilities, and social spaces. While demands for amenities are being met, students now also expect a safe and secure environment (La Roche et al., 2010). Student learning is a holistic process; thus, students who struggle with finances, emotional needs, or social concerns make less progress in their education (Palmer et al., 2008). In a study at an urban institution, Silva and colleagues (2017) discovered nearly half of students who indicated they were housing insecure also reported having difficulty attending class. It is important to understand where students are living as well as how students' living conditions influence their success to maximize and improve their experiences.

Campus housing often provides more opportunities for students to become involved in their communities (Pascarella & Terenzini, 2005). Students who partake in living learning communities (LLCs) were better able to establish a social network, develop leadership skills, and partake in multicultural experiences (Spanierman et al., 2013). Further, research from Spanierman and colleagues (2013) found that students who participated in LLCs perceived a greater sense of belonging than their non-LLCs peers. Yet, Schussler and Fierros (2008) found no differences in social or faculty relationships for students who participated in residential learning communities and those who did not. However, socially supportive environments in the

residence halls are significant predictors of sense of belonging for students from marginalized populations except for multiracial students (Johnson et al., 2007).

Living on campus has been linked to positive student gains when looking broadly at research (Mayhew et al., 2016; Palmer et al., 2008; Schudde, 2011). Pike (2002) studied first-year students on campus finding positive direct effects on their openness to diversity, and positive indirect effects when living in interest groups. However, no indirect effects were found for students in traditional halls or in learning communities. The first-year interest groups were sponsored learning communities that co-enrolled students in three courses and a one-hour seminar. Using a national longitudinal dataset, Schudde (2011) found living on campus had a positive effect on first-year students returning to college in their second year net of student demographics. Moreover, satisfaction and social support networks also contribute to student persistence within residence halls (Foubert et al., 1998).

Although, there may be a number of positive benefits to living on campus there are also barriers. La Roche and colleagues (2010) found in their study that nearly half of students believed that living on campus was more expensive than living off campus, and one-quarter of students believed that finances were a deciding factor in their housing decision. Palmer et al. (2008) summarized three key findings of residence life research: living on campus positively affects persistence, the residential experience has little effect on cognitive growth but learning is greatest when intentional design is considered, and the effects of residence halls are more indirect than direct.

Experiences of Marginalized Students with Housing Environments

While the effects of residence halls seem promising, diving more deeply into minoritized populations can shed further light on differing experiences.

Students outside of the gender binary frequently face challenges regarding housing and residence life. Departments often used sex to place incoming students into rooms, which often fails to consider if the student does not identify with what was assigned to them at birth (Krum et al., 2013). In a study of transgender and gender-nonconforming students considering living on campus during college, Krum and colleagues (2013) found these students preferred apartment-style and single room housing options. Moreover, the researchers found that students would be more likely to attend an institution that had these housing arrangements than ones that did not. The adversity trans* students face is likely ratcheted as they must frequently out themselves or

bear the burden of additional interviews and paperwork to receive gender equitable housing (Nicolazzo & Marine, 2015). The processes further marginalize students who face difficulty navigating collegiate environments. In considering staff practices, from recruitment to placement, residence life departments should consider how the process is inclusive to trans* individuals (Nicolazzo & Marine, 2015).

While studies focus on the aggregated LGBT residence hall experience (see Fanucce & Taub, 2010) it is crucial to recognize students navigate gender identity and sexual orientation differently (Garvey & Rankin, 2015). LGBQ+ students have endured challenges on college campuses and within residence halls. Resident assistants were historically tasked with seeking out gay men on campus to report them to administration for punishment (Dilley, 2002). This mirrors findings about lesbian and bisexual women in residence halls who reported direct and indirect harassment from roommates as well as resident assistants (Evans & Broido, 2002). LGB students who perceive their environment as supportive and have positive interactions with their peers feel more comfortable coming out (Evans & Broido, 1999). This may support the fact that LGB students report higher intellectual benefits from college and greater peer interactions (Longerbeam et al., 2007). Yet, Dugan and Yurman (2011) reported that LGB students less frequently participated in significant learning experiences such as study abroad, internships, or learning communities. As such, Renn (2010) urged scholars to pursue large-scale quantitative research to better understand the queer student experience.

Students with disabilities frequently face challenges navigating college environments (Bauman et al., 2013; Brown & Broido, 2015). Vaccaro and colleagues (2015) developed a model explaining the development of sense of belonging for students with disabilities, finding the ability to self-advocate and having supportive relationships to be two factors. The latter was specifically described in connection with living in the residence halls. It was important for students with disabilities to meet students both similar and dissimilar to themselves to improve their sense of belonging (Vaccaro et al., 2015). Invisible disabilities related to learning or emotions may make it difficult for students to navigate environments and for practitioners to assist students (Bauman et al., 2013; Brown & Broido, 2015). Even if students with disabilities are provided alternative housing options, they may feel increased isolation or harassment (Ackles et al., 2013).

Students of Color are increasingly the focus of many housing-related studies as differences continue to emerge about their experiences (Hurtado et al., 2019). Turley and Wodtke (2010) found Black students who live on campus tend to have higher GPAs than their peers living at home, reinforcing the importance of examining living arrangements. Some students who live on campus face policies that limit their ability to select their own roommates (Bauer-Wolf, 2018). Such policies risk exposing marginalized students to acts of discrimination within their living quarters (Solórzano et al., 2002), and may lead to less positive perceptions of the supportiveness of the campus environment and of the quality of interactions on campus (Fosnacht et al., 2020). This mirrors the findings of Hotchkins and Dancy (2017) who reported that Black students struggle with not seeing themselves represented in residence halls. It is no surprise that literature portrays Students of Color reporting the climate of residence halls as poor compared to their White counterparts (Johnson, 2003). Although, Students of Color who did perceive their halls as supportive reported more sense of belonging (Johnson et al., 2007).

Methods

Data

The National Survey of Student Engagement (NSSE) measures the time and effort students put toward meaningful educational experiences at bachelor's degree-granting colleges and universities. In 2018, it was used to collect data for this study in tandem with an additional item set related to student housing experiences sponsored by ACUHO-I. There were over 30,000 first-year and sophomore responses from 76 residential institutions.

Respondents

The largest marginalized student population was Black (10.1%) students followed by Multiracial (9.1%) and Hispanic or Latino (9.0%). The smallest group was Native Hawaiian or Other Pacific Islander (.2%). Regarding gender identity, 1% of respondents identified as gender nonconforming by selecting "Another gender identity" and writing a short description. About two-thirds of respondents identified as women (67.6%), and the remaining portion identified as men (31.4%). Of marginalized sexual orientations, students more often identified as bisexual (6.5%), followed by questioning or unsure (1.7%), gay (1.5%), and another sexual orientation (1.5%). Regarding disabilities, mental health disorders (4.2%) were most frequently among respondents, followed by learning disabilities (3.7%). About 3% identified multiple disabilities or impairments. A small portion of respondents were international (5.2%), and over one-third

were first-generation (39.2%) (neither parent having a college degree). Respondents averaged 19 years of age. More student demographic information can be found in Table 1.

First-year students comprised of more than half (59%) of the sample while sophomores were the remaining. The most common student-reported majors were in the health professions (14.6%); business (14.3%); social sciences (13.1%); biological sciences, agriculture, and natural resources (12.3%); and arts and humanities (10.2%). Only 1.9% were undecided or undeclared. A large majority of respondents earned mostly 'A' grades (49%) or 'B' grades (43%) while in college. Nearly two-thirds of respondents lived on campus (64.9%), and the remainder either lived at home with family (19.4%) or in a different off campus location (15.6%). A full list of student background characteristics is found in Table 2.

Measures

Dependent Variables

Three measurement scales from the additional questions about housing experiences are of interest to this study. The first, *Belongingness and Safety,* is comprised of six items about students' perceptions of their living situation in terms of their physical safety, freedom from harassment and discrimination, comfort being themselves, being valued, a sense of community, and the ability to resolve conflicts that might arise (1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree; $\alpha = .870$). The second, *Residential Learning Activities,* is a checklist of eight opportunities for students to learn in their place of residence, ranging from using academic support services to attending health and wellness activities (1=Selected, 0=Not selected; $\alpha = .759$). The third scale, *Perceived Housing Impact,* is a set of four items that asked students to rate the impact of their living situation on outcomes such as their ability to succeed academically, ability to make friends in college, overall physical well-being, and overall emotional or mental well-being (1=Strong negative impact, 2=Negative impact, 3=No positive or negative impact, 4=Positive impact, 5=Strong positive impact; $\alpha = .851$).

Three Engagement Indicators (NSSE, 2020) from the core NSSE questionnaire are also relevant to student living situations. The first, *Discussions with Diverse Others,* includes four items about the frequency of students' interactions with individuals who differ in terms of race, economic background, religious beliefs, or political views (1=Never, 2=Sometimes, 3=Often, 4=Very often; $\alpha = .854$). Second, the *Quality of Interactions* indicator asks students about their

quality of interactions with students, academic advisors, faculty, student services staff (career services, student activities, housing, etc.), and other administrative staff (1=Poor to 7=Excellent; α = .786). Finally, the eight items in the *Supportive Environment* indicator ask students how much their institution supported a variety of resources or activities e.g., using learning support services, helping students manage non-academic commitments, and attending campus activities (1=Very little, 2=Some, 3=Quite a bit, 4=Very much; α = .879). Details of the variables are found in Table 3.

Independent Variables

Several key variables in the study assist us in disaggregating and examining marginalized students' experiences in terms of race/ethnicity, gender identity, sexual orientation, and ability status. The race/ethnicity question simply asked "What is your racial or ethnic identification?" and offered the following select-all-that-apply options: (a) American Indian or Alaska Native, (b) Asian, (c) Black or African American, (d) Hispanic or Latino, (e) Native Hawaiian or Other Pacific Islander, (f) White, (g) Other, and (h) I prefer not to respond. Students reported their gender identity by selecting (a) Man, (b) Woman, (c) Another gender identity (with a write-in option), or (d) I prefer not to respond. Respondents were asked to provide their sexual orientation with the options: (a) Straight (heterosexual), (b) Bisexual, (c) Gay, (d) Lesbian, (e) Queer, (f) Questioning or unsure, (g) Another sexual orientation (with a write-in option), or (h) I prefer not to respond. Regarding ability status, respondents who indicated they were diagnosed with a disability or impairment were given the following select-all-that-apply options: (a) A sensory impairment (vision or hearing), (b) A mobility impairment, (c) A learning disability (e.g., ADHD, dyslexia), (d) A mental health disorder, and (e) A disability or impairment not listed above. For age, students provided the year they were born, which was recoded into age categories. Finally, first-generation status was derived from student-reported parents' education level and was defined as neither parent having completed at least a bachelor's degree.

Items related to students' housing experiences were based on student-reported information from the additional question set. Students were asked if they lived on or off campus, and those who selected "Off campus" were asked "Do you live at home with your family?" These responses were combined into one variable that defined three groups: students who lived on campus, students who lived off campus (not at home), and students who lived at home with family.

Students also reported attributes related to their academics. They were asked to identify up to two majors or expected majors, which were then collapsed into ten related-major categories such as arts & humanities, social sciences, business, engineering, health professions, and so on. Students also self-reported grades with the question, "What have most of your grades been up to now at this institution? For the current analysis, the letter-grade options were recoded using conversion values on the 4.0-point scale (i.e., A=4.0, A-=3.67, B+=3.33, B=3.0, B-=2.67, C+=2.33, C=2.0, and C- or lower=1.67) to provide an estimated GPA value for each respondent.

Analysis

A variety of quantitative methods were used in the study. First, chi-square tests provide a greater understanding of students' statistical representations within living arrangements (McHugh, 2013). Adjusted residuals more than 2 or less than -2 are considered to be noticeable differences (Agresti & Finley, 2009). This helps determine if there is a difference in where students are expected to live and where they report living given the data, and reveals how represented student populations are within various living arrangements.

Next, a series of multivariate regressions sheds light on the relationship between marginalized students and the six dependent variables described above. The dependent variables were standardized prior to analysis to allow the coefficients to be interpreted as effect sizes. A second series of models with interaction terms is used to better understand the relationship between the dependent and independent variables of interest (Andersson et al., 2014) as literature demonstrated the disproportionate effects of housing types on marginalized students' success (Strayhorn & Mullins, 2012). Further, effect coding was used to mean center demographic variables to prevent using majority groups as reference categories (Mayhew & Simonoff, 2015). Institutions were individually entered into the model as dummy codes to assist in controlling for associated characteristics. While multilevel modeling is sometimes preferred for nested data, students within institutions, variance is often minimal between institutions thus rendering the method unnecessary (Sarraf et al., 2005). In the present study, the ICC was less than 4%, showing little variance is explained between institutions affirming the use of the present methodology.

Results

Research Question 1

The first research question asked, "What are the living arrangements where students from marginalized backgrounds are most represented during their collegiate years?" The chi-square test compares the expected and observed living arrangements of students (Table 4).

Race or Ethnicity

Results indicate that Asian (AR = -8.8, $p < .001$) and Hispanic or Latino students (AR = -18.9 p< .001) were underrepresented in the on-campus population, while Black or African American (AR = 13.4, $p < .001$) and White (AR = 9.5, $p < .001$) students were overrepresented. For off campus, Black or African American (AR = -8.7, $p <.001$) and Hispanic or Latino (AR = -6.4, $p <.001$) students were underrepresented, and White (AR = 8.7, $p <.001$) students were overrepresented. For those living at home, Black or African American (AR = -8.2, $p <.001$) and White (AR = -19.5, $p <.001$) students were underrepresented, and Asian (AR = 10.2, $p <.001$) and Hispanic or Latino (AR = 28.7, $p <.001$) students were overrepresented.

Gender Identity

Among on-campus residents, men (AR = 6.5, $p < .001$) were underrepresented while women (AR = -6.5, $p <.001$) were overrepresented. The reverse was true for off-campus residents—women (AR = -8.4, $p <.001$) were underrepresented while men (AR = 7.8, $p <.001$) and gender variant (AR = 2.5, $p <.001$) students were overrepresented. Gender variant (AR = -2.1, $p <.001$) students were underrepresented living with family.

Sexual Orientation

Students who identified as straight (AR = -7.6, $p <.001$) were underrepresented on campus while students identifying as bisexual (AR = 6.0, $p <.001$), gay (AR = 3.5, $p <.001$), lesbian (AR = 3.0, $p <.001$), queer (AR = 4.8, $p <.001$), or questioning or unsure (AR = 3.1, $p <.001$) were overrepresented. Bisexual (AR = -2.2, $p <.001$), questioning or unsure (AR = -2.4, $p <.001$), and another sexual orientation (AR = -2.3, $p <.001$) were underrepresented while straight (AR = 2.3, $p <.001$) students were proportionally more present off campus. Bisexual (AR = -5.2, $p <.001$), gay (AR = -3.8, $p <.001$), lesbian (AR = -3.5, $p <.001$), and queer (AR = -5.3, $p <.001$) students are underrepresented while straight (AR = 7.0, $p <.001$) students were overrepresented.

Ability Status

Finally, when looking at differing abilities, students reporting a mental health disorder (AR = 4.4, $p <.001$) were overrepresented on campus. Moving off campus, students with no

disability (AR = -5.2, p <.001) were underrepresented while students with a learning disability (AR = 4.0, p <.001) or more than one disability or impairment (AR = 5.3, p <.001) were overrepresented. For those living at home with family, students with a sensory impairment (AR = -2.3, p <.001), a learning disability (AR = -4.1, p <.001), a mental health disorder (AR = -6.0, p <.001), or more than one disability or impairment (AR = -2.6, p <.001) were underrepresented, while students with a mobility impairment (AR = 2.2, p <.001) or no disability (AR = 6.1, p <.001) were overrepresented.

Research Question 2

The second research question is, "What is the relationship of marginalized students' living arrangements to engagement and perceptions of their residential and campus environments?" In order to understand the relationships two models were run—one *without* the interaction (Table 5) and one *with* the interaction (Table 6) of race and housing type. All results should be considered in comparison to the mean response of the dependent variable.

Belonging & Safety

When examining belongingness and safety without interactions with housing arrangements, students who identified as Asian (B = -.14, p < .001), Black or African American (B = -.1, p < .001), Other (B = -.17, p < .01), and Multiracial (B = -.07, p < .001) have less levels of the outcome while White students (B = .05, p < .001) have more. Regarding housing types, students who lived on campus (B = -.14, p < .001) perceived less belongingness and safety while students living with family (B = .47, p < .001) perceived more. In considering the unique interaction of students race and living arrangement, it appears students identifying as Asian living with family (B = -.06, p < .001), Black or African American living with Family (B = -.14, p < .01), or Native Hawaiian or Other Pacific Islander with Family (B = -.29, p < .001) perceived lower levels of belongingness and safety while Asian on-campus (B = .03, p < .01), Native Hawaiian or Other Pacific Islander on-campus (B = .1, p < .01) had more of a sense of belongingness and safety.

Residential Learning Activities

In looking at residential learning activities net of interactions with housing types, students who identified as Hispanic or Latino (B = -.02, p < .05) participated in fewer residential learning activities while students identifying as an Other race (B = .01, p < .05) did more. Students who live off-campus (B = -.4, p < .001) and with family (B = -.62, p < .001) partook in less

residential learning activities while those living on-campus (B = .28, $p < .001$) participated more. When looking at the interaction effects, students identifying as White on-campus (B = -.01, $p < .01$), Asian off-campus (B = -.12, $p < .001$), Multiracial off-campus (B = -.08, $p < .05$), and Multiracial with family (B = -.07, $p < .05$) partook in fewer residential learning activities while American Indian or Alaska Native on-campus (B = .01, $p < .05$), Multiracial on-campus (B = .04, $p < .01$), and White with family (B = .03, $p < .01$) participated at higher levels.

Perceived Housing Impact

Students who identified as Asian (B = -.05, $p < .05$), an Other race (B = -.11, $p < .05$), and Multiracial (B = -.07, $p < .01$) had lower perceptions of housing's impact while White students (B = .02, $p < .001$) had higher perceptions. Students living on-campus (B = -.07, $p < .001$) perceived the impact of their housing arrangement less than students who lived with their family (B = .23, $p < .001$). In considering the interaction model, students who identified as White on-campus (B = -.02, $p < .001$), Asian off-campus (B = -.19, $p < .001$), Black or African American living with family (B = -.12, $p < .05$), Hispanic or Latino living with family (B = -.14, $p < .001$) had lower perceptions of housing's impact while students who identify as Asian on-campus (B = .07, $p < .001$), Black or African American on-campus (B = .05, $p < .01$), Hispanic or Latino on-campus (B = .05, $p < .001$), and White living with family (B = .06, $p < .001$) had higher perceptions.

Discussions with Diverse Others

Regarding having discussions with diverse others at their institution, Asian (B = -.06, $p < .05$), Black or African American (B = -.11, $p < .001$), Hispanic or Latino (B = -.08, $p < .01$) identifying students had fewer interactions while Native Hawaiian or Other Pacific Islander (B = .3, $p < .05$), White (B = .02, $p < .05$), an Other race (B = .15, $p < .05$), and Multiracial (B = .07, $p < .001$) identifying students had more interactions. Students who lived with family (B = -.1, $p < .001$) had fewer discussions with diverse others while students on-campus (B = .2, $p < .001$) had more. In looking at the interactions, Asian students off-campus (B = -.21, $p < .001$) had less while Asian students on-campus (B = .04, $p < .01$), and an Other race with Family (B = .15, $p < .05$) had more discussions with diverse others.

Quality of Interactions

Students identifying as American Indian or Alaska Native (B = -.26, $p < .05$) and Black or African American (B = -.09, $p < .001$) had lower levels of quality of interactions while their

peers identifying as White (B = .04, $p < .001$) had higher levels. Students living off-campus (B = -.05, $p < .01$) perceived lower levels of quality of interactions as well. Regarding the interaction model of race and housing type, students identifying as Native Hawaiian or Other Pacific Islander on-campus (B = -.17, $p < .05$) or Asian off-campus (B = -.24, $p < .01$) perceived lower levels of quality of interactions while Native Hawaiian or Other Pacific Islander off-campus (B = .61, $p < .05$) and an Other race living with family (B = .19, $p < .05$) perceived higher levels.

Supportive Environments

In considering their perceptions of one's institutional environment as supportive, students identifying as Asian (B = -.11, $p < .001$) perceived lower levels of support while Black or African American students (B = .05, $p < .05$) perceived higher levels. Students living off-campus (B = -.08, $p < .001$) perceived lower levels of supportive environments while on-campus (B = .03, $p < .001$) perceived more support. Looking at the interaction model, students identifying as Asian living with their family (B = .12, $p < .05$) perceived higher levels of supportive environments.

Limitations

While the study builds on previous research on student housing experiences, there is room for improvement. Although the study disaggregated several identities, the response options did not represent the full spectrum of the students on college campuses. Future surveys may want to further breakdown categories or look at intersecting identities as there are known differences within groups e.g., students who identify as LGBQ+ and Asian report higher levels of sense of belonging than peers (see BrckaLorenz et al., 2019; Teranishi et al., 2013). Additionally, it is important to recognize students are not one-dimensional, making it important to examine the unique intersections of their identities (Duran et al., 2020). Further, the institutions in the study self-selected into the survey administration thus it is possible that if different institutions participated there may be different patterns of responses.

Discussion

The study is significant for aiding practitioners in improving their residence life and housing practice as we disaggregate marginalized student groups to look at their living arrangements and experiences. Specifically, we look at living arrangements and related experiences by student-reported race/ethnicity, gender identity, sexual orientation, and ability status. Implications for policy and practice include the need to continue to broaden housing

options for marginalized students, train staff on the unique needs of subgroups, and make resources available within the halls for marginalized students.

Using disaggregated race/ethnicity categories shows patterns that are not detected by aggregated results. For example, chi-square tests revealed Asian and Latinx students were more represented living at home with families, while Black students were underrepresented in this living arrangement. We also found students reporting a mental health disability were overrepresented on campus. This raises questions about the nature of living arrangements and what is the price both financially and developmentally. It is important to consider which environments are best suited for specific types of care and which may be beneficial for student development. Additionally, the finding about students with reported mental health disorders being overrepresented on-campus reinforces the urgency to train practitioners as well as student staff to this end.

Given the chi-square results, a deeper probe into the living arrangements of marginalized students seemed necessary. While there are a host of results that indicate the benefits and drawbacks of the housing types, specific attention should be given to when the direction of the results change; this indicates that the combination of the student's race and housing type is altering the outcome. Looking at the two regression models side by side is advantageous and sheds light on many points regarding Asian students in particular.

For example, it is important to note that Asian students perceived less belongingness and safety in general, but the interaction of their identity and on-campus living arrangement showed a positive relationship. This may be a testament to the communal atmosphere that residential life provides students. The same pattern holds true when considering Asian students' perceived housing impact. In the first model, there is a lower perception but when considering the unique effects of Asian students who live on-campus there are positive perceptions. It raises questions as to what are the resources being provided to Asian students and why might this perception hold true for one student population and not another? Further, Asian students report less discussions with diverse others yet the interaction of living on-campus shows the students having more conversations. This result affirms previous research that living on-campus may have positive effects related to multiculturalism (Spanierman et al., 2013). Finally, Asian students reported lower levels of supportive environments but when looking at the interaction of the students living with family there is a reverse, showing more positive results. This differs from belongingness

and safety; it indicates students are finding comfort from home when their institution may be lacking, for example, family members may be assisting students academically through encouragement.

Conclusion

Living arrangements appear to have unique advantages and drawbacks making it difficult to pinpoint the ideal situation for every student. There are certainly characteristics that enhance or detract from an environment such as, positive social interactions (Johnson et al., 2007). If students do not have community guidelines and mutual expectations then opportunities for individual development will be limited (Riker & Decoster, 2008). Practitioners of residence life, disability services, and multicultural centers should work in concert to support students across varying living arrangements.

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Tables

Table 1. Student Demographics

		Count	Column %	Mean
Race/ethnicity	American Indian or Alaska Native	105	0.3	
	Asian	2736	8.4	
	Black or African American	3273	10.1	
	Hispanic or Latino	2914	9.0	
	Native Hawaiian or Other Pacific Islander	67	0.2	
	White	19250	59.1	
	Other	448	1.4	
	Multiracial	2948	9.1	
	I prefer not to respond	807	2.5	
Gender Identity	Man	9972	30.5	
	Woman	22111	67.6	
	Another gender identity	326	1.0	
	Prefer not to respond	312	1.0	
Sexual Orientation	Straight (heterosexual)	27154	83.0	
	Bisexual	2120	6.5	
	Gay	489	1.5	
	Lesbian	368	1.1	
	Queer	384	1.2	
	Questioning or unsure	553	1.7	
	Another sexual orientation, please specify	503	1.5	
Disability	I prefer not to respond	1130	3.5	
	A sensory impairment	275	0.8	
	A mobility impairment	105	0.3	
	A learning disability	1214	3.7	
	A mental health disorder	1381	4.2	
	A disability or impairment not listed above	380	1.2	
	More than one disability or impairment	966	3.0	
	No disability or impairment	27104	83.1	
	Prefer not to respond	1194	3.7	
International Student	No	30935	94.8	
	Yes	1688	5.2	
First Generation	Not first-generation	19820	60.8	
	First-generation	12778	39.2	
Estimated Age	Age	32500	100.0	19.35

Table 2. Student Living & Academic Characteristics

		Count	Column %	Mean
Living Arrangement	On Campus	21237	64.9	
	Off Campus	5111	15.6	
	With Family	6351	19.4	
Institution-Reported Class	Freshman (1st year)	19358	59.0	
	Sophomore (2nd year)	13462	41.0	
Academic Major	Arts & Humanities	3333	10.2	
	Biological Sciences, Agriculture, & Natural Resources	4027	12.3	
	Physical Sciences, Mathematics, & Computer Science	1929	5.9	
	Social Sciences	4274	13.1	
	Business	4674	14.3	
	Communications, Media, & Public Relations	1644	5.0	
	Education	2213	6.8	
	Engineering	2141	6.6	
	Health Professions	4765	14.6	
	Social Service Professions	1735	5.3	
	All Other	1281	3.9	
	Undecided, undeclared	630	1.9	
Estimated GPA	GPA	32713	100	3.41

Table 3. Descriptive Statistics of Dependent Variables

	N	Minimum	Maximum	Mean	SD	Alpha
Belongingness and Safety	32532	-2.66	1.33	0.00	0.73	0.87
Residential Learning Activities	32532	-0.55	1.78	0.09	0.50	0.759
Perceived Housing Impact	32532	-2.71	1.52	0.00	0.77	0.851
Discussions with Diverse Others	32389	0	60	40.38	14.94	0.854
Quality of Interactions	31473	0.00	60.00	41.21	11.94	0.786
Supportive Environment	32485	0.00	60.00	36.02	13.35	0.879

Table 4. Chi-Square Statistics for Differences in Student Demographics and Living Arrangements

	Living Arrangement					
	On	Off	Family	*n*	*df*	χ^2 sig
Racial/Ethnic Identification						
American Indian or Alaska Native	-0.9	1.8	-0.6			
Asian	-8.8	0.4	10.2			
Black or African American	13.4	-8.7	-8.2			
Hispanic or Latino	-18.9	-6.4	28.7	32,443	16	1254.58***
Native Hawaiian or Other Pacific Islander	-0.1	0.2	0.0			
White	9.5	8.7	-19.5			
Another race or ethnicity	-7.4	1.4	7.7			
Multiracial	1.2	-1.6	0.1			
I prefer not to respond	-1.9	1.4	1.1			
Gender Identity						
Man	-6.5	7.8	0.8			
Women	6.5	-8.4	-0.1	32,614	6	81.606***
Another Gender Identity	-0.1	2.5	-2.1			
I prefer not to respond	-0.2	1.3	-1.0			
Sexual Orientation						
Straight	-7.6	2.3	7.0			
Bisexual	6.0	-2.2	-5.2			
Gay	3.5	-0.5	-3.8			
Lesbian	3.0	-0.1	-3.5	32,595	14	134.98***
Queer	4.8	-0.5	-5.3			
Questioning or unsure	3.1	-2.4	-1.6			
Another sexual orientation	2.7	-2.3	-1.1			
I prefer not to respond	-3.4	2.0	2.2			
Ability						
A sensory impairment	1.8	0.1	-2.3			
A mobility impairment	-1.3	-0.6	2.2			
A learning disability	0.4	4.0	-4.1			
A mental health disorder	4.4	0.8	-6.0			
A disability or impairment not listed above	-1.6	1.7	0.4	32,517	14	113.421***
More than one disability or impairment	-1.9	5.3	-2.6			
No disability or impairment	-1.1	-5.2	6.1			
Prefer not to respond	-0.7	-0.1	1.0			

*Adjusted residuals; *$p < .05$. **$p < .01$, ***$p < .001$*

Table 5. Regression Coefficients for Models with Interaction Terms for Racial/Ethnic Identity

		Belonging & Safety		Residential Life Activities		Perceived Housing Impact		Discussion with Diverse Others		Quality of Interactions		Supportive Environments	
		B	Sig.	B	Sig.	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Racial/Ethnic Identity	American Indian or Alaska Native	-0.01		-0.01		0.07		0.00		-0.26	*	-0.22	
	Asian	-0.14	***	0.02		-0.05	*	-0.06	*	-0.05		-0.11	***
	Black or African American	-0.10	***	0.00		-0.03		-0.11	***	-0.09	***	0.05	*
	Hispanic or Latino	-0.03		-0.02	*	0.01		-0.08	**	-0.03		0.04	
	Native Hawaiian or Other Pacific Islander	0.01		0.24		0.06		0.30	*	0.06		0.17	
	White	0.05	***	0.00		0.02	***	0.02	*	0.04	***	0.01	
	Other	-0.17	**	0.01	*	-0.11	*	0.15	*	-0.10		-0.08	
	Multiracial	-0.07	***	0.05		-0.07	**	0.07	***	-0.03		-0.02	
	Prefer not to respond	-0.14	*	-0.08	*	-0.11	*	0.04		-0.25	***	-0.16	***
Housing Location	On-Campus	-0.14	***	0.28	***	-0.07	***	0.20	***	0.01		0.03	***
	Off-Campus	-0.03		-0.40	***	0.01		0.04	*	-0.05	**	-0.08	***
	With Family	0.47	***	-0.62	***	0.23	***	-0.10	***	0.00		-0.03	

Note: *$p < .05$, **$p < .01$, ***$p < .001$. Effect coding allows for coefficients for all groups as the average response score was used as a reference category. Outcome variables were standardized prior to analyses allowing coefficients to be interpreted as effect sizes. Additional effect codes: disability, gender identity, sexual orientation, major. Additional controls: class-level, age, first-generation, avg. per capita income in zip, institution

Table 6. Regression Coefficients for Models with Interaction Terms for Racial/Ethnic Identity

		Belonging & Safety		Res. Life Activities		Per. Housing Impact		Dis. with Diverse Others		Quality of Interactions		Supportive Environments	
		B	Sig.	B	Sig.	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Interaction of Race/Ethnicty & On-Campus Living	American Indian or Alaska Native*On	-0.14		0.01	*	-0.11		-0.07		-0.08		0.01	
	Asian*On	0.03	**	0.02		0.07	***	0.04	**	0.03		-0.01	
	Black or African American*On	0.05		0.01		0.05	**	-0.03		0.01		0.00	
	Hispanic or Latino*On	0.03		0.04		0.05	***	0.04		0.01		0.00	
	Native Hawaiian or Other Pacific	0.10	**	-0.05		0.05		0.01		-0.17	*	0.00	
	White*On	-0.01		-0.01	**	-0.02	***	0.00		0.00		0.00	
	Other*On	-0.01		0.01		-0.02		-0.01		0.01		0.01	
	Multiracial*On	0.01		0.04	**	0.02		0.00		0.00		0.01	
	Prefer not to respond*On	-0.08		-0.02		-0.06	*	-0.03		-0.04		-0.01	
Interaction of Race/Ethnicty & Off-Campus Living	American Indian or Alaska Native*Off	0.31		-0.10		0.27		0.07		0.25		0.04	
	Asian*Off	-0.07		-0.12	***	-0.19	***	-0.21	***	-0.24	**	-0.13	
	Black or African American*Off	-0.02		0.05		-0.05		0.09		0.07		0.01	
	Hispanic or Latino*Off	0.03		-0.09		-0.01		-0.07		-0.02		-0.02	
	Native Hawaiian or Other Pacific	-0.06		-0.10		0.13		-0.11		0.61	*	-0.07	
	White*Off	-0.01		0.03		0.02		0.02		0.01		0.02	
	Other*Off	0.02		-0.02		0.10		-0.15		-0.29		-0.11	
	Multiracial*Off	0.04		-0.08	*	0.00		0.03		0.08		-0.04	
	Prefer not to respond*Off	0.16		0.07		0.16		0.00		-0.04		0.15	
Interaction of Race/Ethnicty & With Family Living	American Indian or Alaska	0.21		0.04		0.15		0.18		0.07		-0.05	
	Asian*Family	-0.05	***	0.02		-0.08		0.03		0.09		0.12	*
	Black or African American*Family	-0.14	**	-0.06		-0.12	*	0.04		-0.08		-0.02	
	Hispanic or Latino*Family	-0.11		-0.08		-0.14	***	-0.06		-0.01		0.02	
	Native Hawaiian or Other Pacific	-0.29	***	0.23		-0.25		0.04		0.12		0.05	
	White*Family	0.05		0.03	**	0.06	***	-0.01		0.00		-0.01	
	Other*Family	0.03		-0.01		-0.01		0.15	*	0.19	*	0.04	
	Multiracial*Family	-0.05		-0.07	*	-0.06		-0.01		-0.04		-0.01	
	Prefer not to respond*Family	0.13	***	0.02		0.08		0.10		0.18		-0.08	

Note: *$p < .05$, **$p < .01$, ***$p < .001$. Effect coding allows for coefficients for all groups as the average response score was used as a reference category. Outcome variables were standardized prior to analyses allowing coefficients to be interpreted as effect sizes. Additional controls: disability, gender identity, sexual orientation, major, class-level, age, first-generation, avg. per capita income in zip, institution